

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1, 2, 4-9, 11, and 13-34 are pending in the present application. Claims 3, 10, and 12 are canceled. Claims 15-34 are new. Claim 1 is the sole independent claim.

Claims 4, 5, 7-9, 11, and 13 were withdrawn from consideration by the Examiner in the Office Action. However, in view of the above amendments and the following remarks, Applicants respectfully submit that these claims are now in proper form and should be considered by the Examiner.

Drawings

In the Office Action, the Examiner objected to Figs. 16-21 and 24, asserting that these drawings require a legend indicating that only that which is old is illustrated. Attached hereto are drawing corrections to Figs. 16-20 and 24 in which the legend of --BACKGROUND ART-- has been added. However, as to Fig. 21, Applicant respectfully disagree with the Examiner that such a legend is necessary. Specifically, Fig. 21 relates to one embodiment of the present invention in which the illustrated obliquely wound windings are used. See, e.g., claim 13.

Furthermore, the Examiner objected to reference numerals 1, 2, and 3 in Fig. 22. In the attached drawing corrections, reference numerals 1, 2, and 3 have been removed. Furthermore, Fig. 22 has been separated into Figs. 22a-22d, as suggested by the Examiner.

Accordingly, the Examiner is respectfully requested to withdraw the objections to the drawings.

Furthermore, Figs. 22e and 22f have been added to the present application. Applicants respectfully submit that, upon review of the present application, it will be readily apparent to the Examiner that these new drawings do not add any new matter to the present application.

Specification

In the Office Action, the Examiner objected to the abstract because it contains over 150 words. Applicants submit that the abstract has been amended so that it contains less than 150 words.

The Examiner further objected to the drawing in page 5. Applicants have amended page 5 to delete this drawing.

Furthermore, the Examiner objected to pages 8 and 17 for minor informalities. Applicants submit that pages 8 and 17 have been amended according to the Examiner's suggestions.

Accordingly, the Examiner is respectfully requested to withdraw the objections to the specification. Furthermore, it is respectfully submitted that, upon review of the application by the Examiner, the Examiner will recognize that none of the amendments or additions to the specification add any new matter to the present application.

Claim Objections

The Examiner objected to claim 14 because of informalities. Applicants respectfully submit that the amendments to claim 14 address the informalities pointed out by the Examiner.

Furthermore, claims 4, 5, and 7-13 have been objected to under 37 C.F.R. § 1.75(c) as being in improper form because they are multiple dependent claims that are dependent on other multiple dependent claims. Applicants respectfully submit that these claims have been amended above so that they are no longer in improper form. Thus, Applicants respectfully request withdrawal of this objection, and consideration of claims 4, 5, and 7-13.

Rejection Under 35 U.S.C. § 112

Claims 1-3, 6, and 14 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because the Examiner asserts that the “synthetic impedance characteristic of an electrode portion” recited in independent claim 1 is not understood. Without conceding to the validity of the rejection, Applicants have amended claim 1 to clarify this feature. Specifically, claim 1 has been amended to recite that the discharge lamps comprise an electrode portion. Furthermore, amended claim 1 now refers simply to “~~a synthetic~~ an impedance characteristic of the electrode portion of each of said discharge lamp.” It is respectfully submitted that such characteristics are readily understandable, especially in view of the present specification (e.g., at pages 23-25, referring to Figs. 11-12). Accordingly, withdrawal of this rejection is respectfully requested.

Rejection Under 35 U.S.C. § 102 and 103

Claims 1-3 and 6 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,717,372 to Lin et al. (hereafter Lin). Furthermore, claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin. These rejections are respectfully traversed.

Independent claim 1 recites that lighting of each discharge lamp is caused by the fact that a reactance of an inductance related to the balancing operation of the shut transformer exceeds the negative resistance at the electrode of each discharge lamp. Applicants respectfully submit that Lin does not disclose this feature. Applicants submit that Lin fails to teach or suggest controlling the negative resistance characteristic of a discharge lamp. Furthermore, it is respectfully submitted that the present invention uses the negative resistance characteristic obtained by arranging an electric conductor adjacent to the backlight, which is different than that of the system in Lin.

Also, independent claim 1 recites, “two coils connected to a secondary winding of a step-up transformer of the inverter circuit are arranged, and magnetically coupled to each other to form a shunt transformer for shunting current such that **magnetic fluxes** generated thereby are opposed each other to **cancel out**” (emphasis added). It is respectfully submitted that Lin fails to disclose this feature. In fact, Applicants submit that Lin fails to teach anything with regard to how magnetic fluxes are canceled out.

Applicants respectfully submit that claim 1 is allowable at least for the reasons set forth above. Furthermore, it is respectfully submitted that claims 2, 3, 6, and 14 are allowable at least

by virtue of their dependency on claim 1. Thus, reconsideration and withdrawal of these rejections are respectfully requested.

Conclusion


Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but to merely show the state of the art, no comment need be made with respect thereto.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

However, should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in order to expedite prosecution.

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Respectfully submitted,

By 

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Attachments

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figs. 16-20, 22, and 24. In Figs. 16-20 and 24, the label --BACKGROUND ART-- has been added. Fig. 22 has been separated into Figs. 22a-22d, and certain reference numerals and captions have been deleted. Furthermore, Figs. 22e and 22f have been added.

Attachment: Replacement sheets

 Annotated sheets showing changes

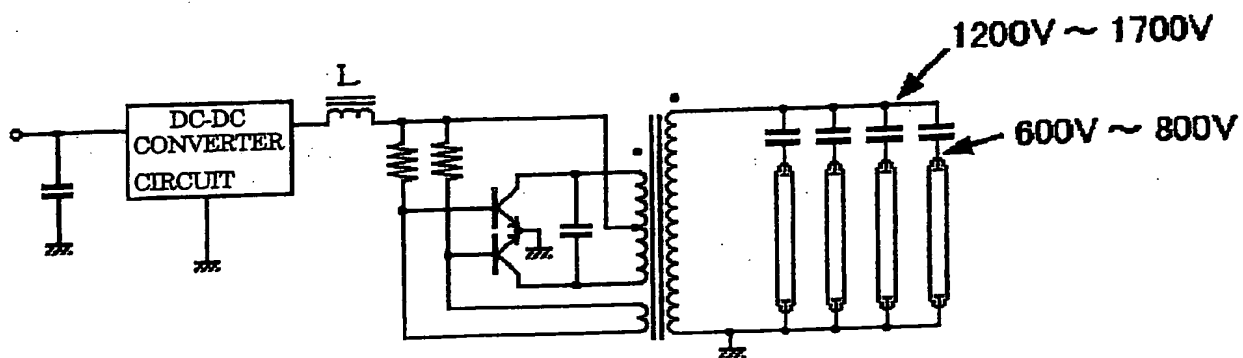
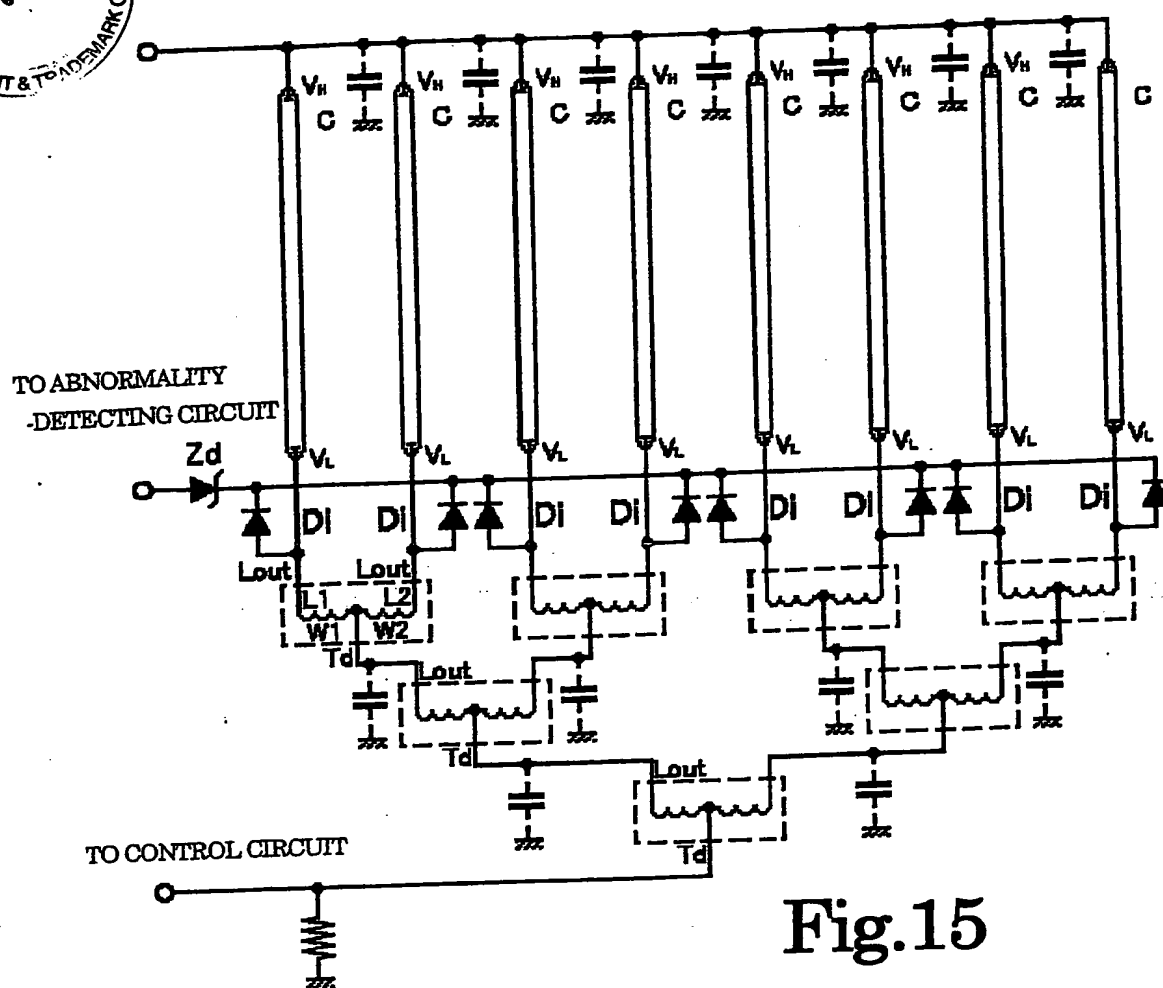


Fig.16
BACKGROUND ART

BEST AVAILABLE COPY

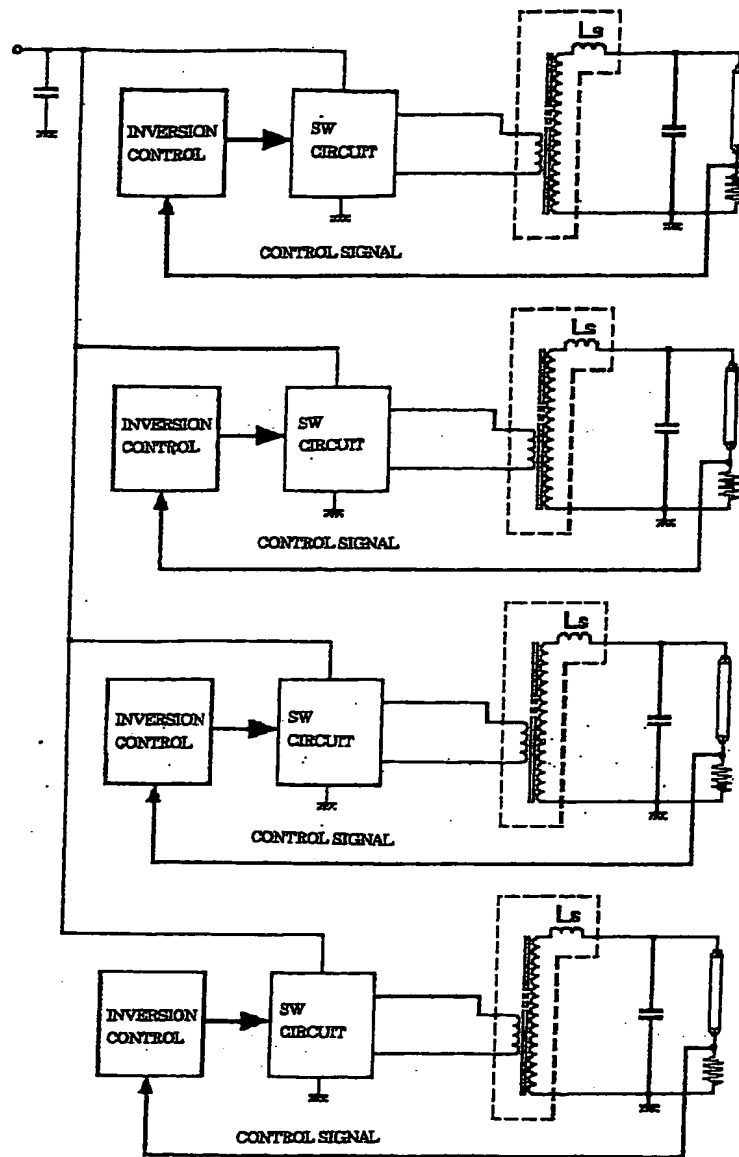


Fig.17
BACKGROUND ART

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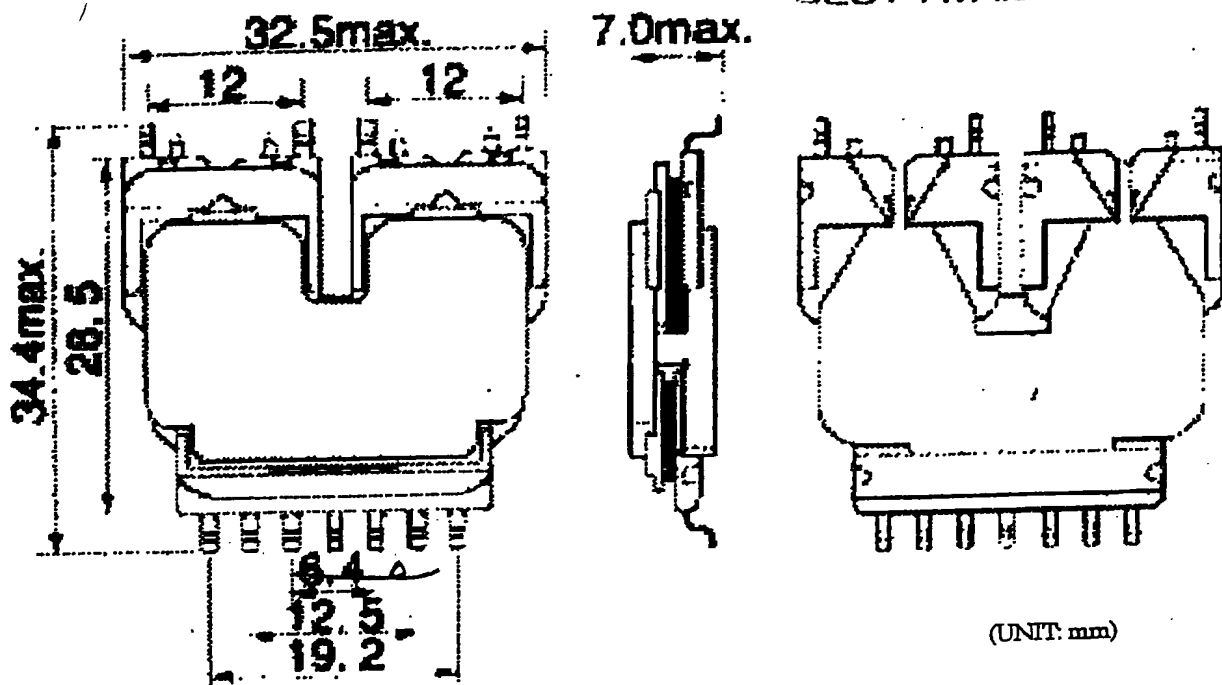


Fig.18
BACKGROUND ART

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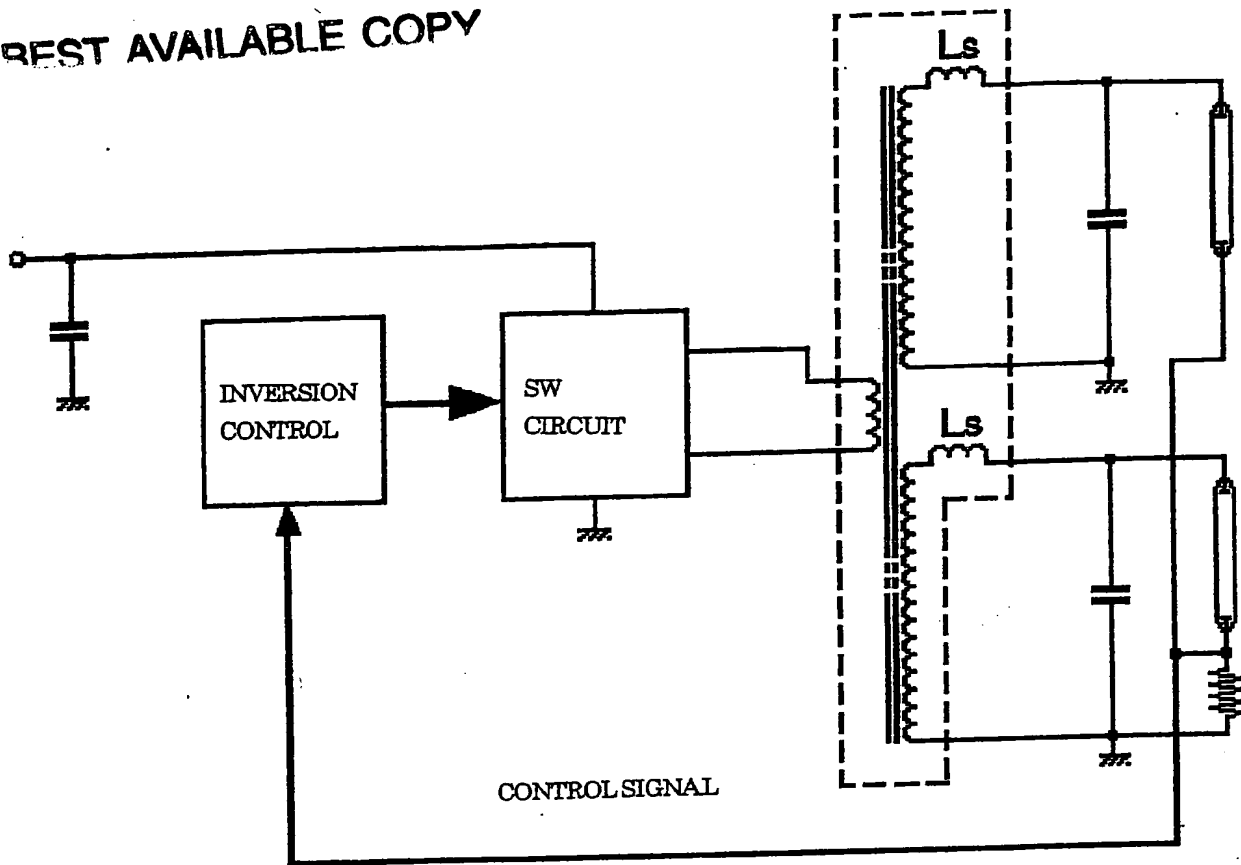


Fig.19
BACKGROUND ART

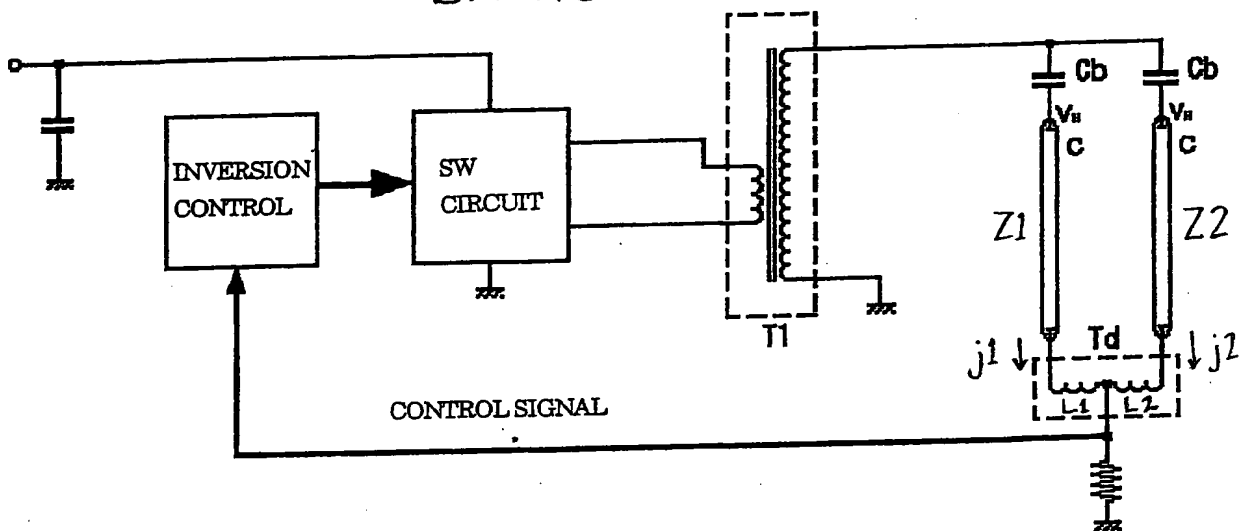


Fig.20
BACKGROUND ART

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Fig 22a

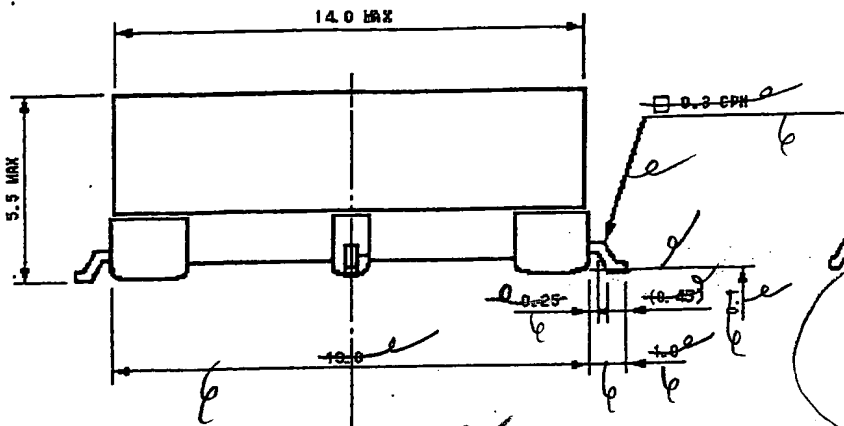


Fig 22b

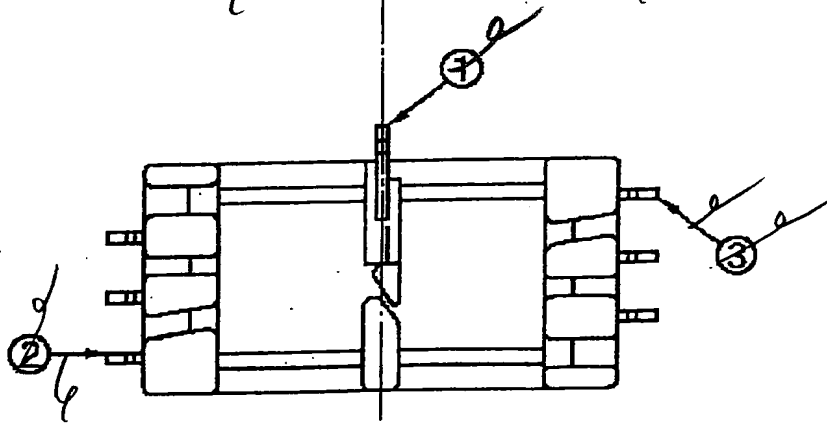
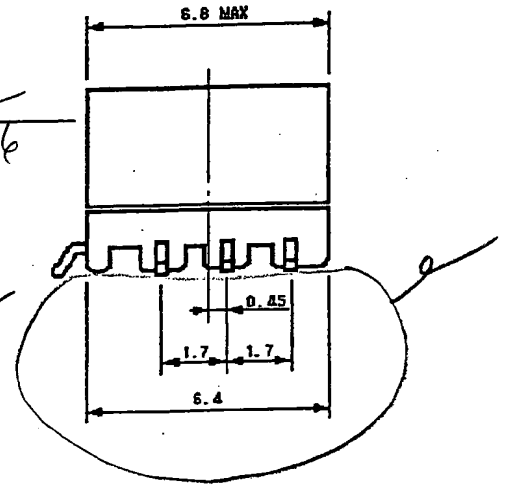


Fig. 22c

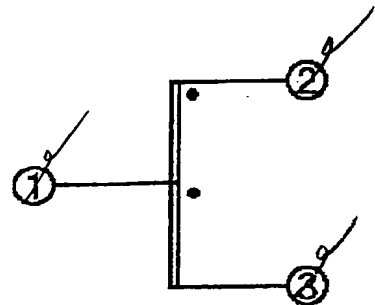


Fig. 22d

~~Fig. 22~~

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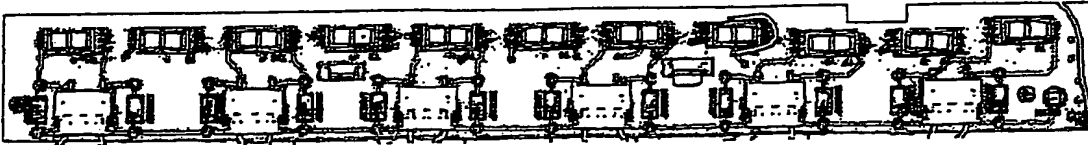


Fig. 23

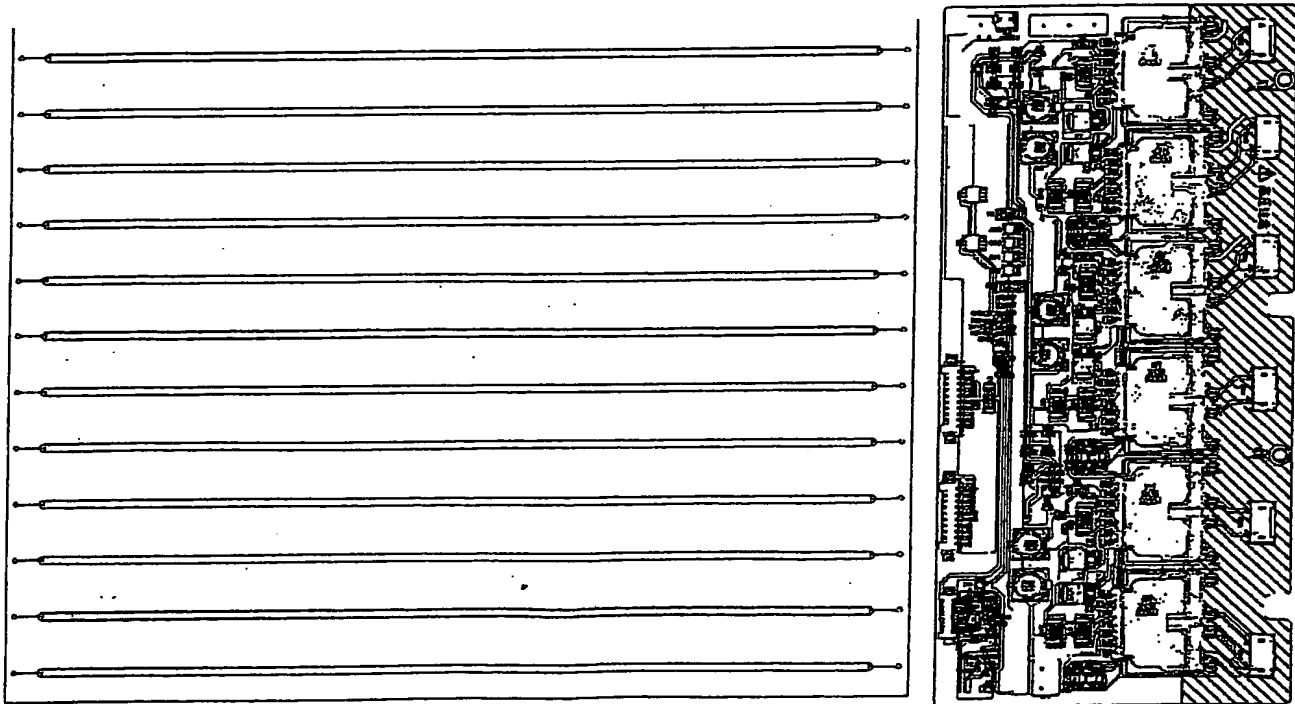


Fig. 24

BACKGROUND ART